

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

LEAGUE OF CONSERVATION VOTERS <i>et al.</i> ,)	
)	
<i>Plaintiffs,</i>)	
)	
v.)	No. 3:17-cv-00101-SLG
)	
DONALD J. TRUMP <i>et al.</i> ,)	
)	
<i>Defendants,</i>)	
)	
AMERICAN PETROLEUM INSTITUTE and STATE)	
OF ALASKA,)	
)	
<i>Intervenor-Defendants.</i>)	
)	

DECLARATION OF ROB MOIR

I, Rob Moir, hereby declare that:

1. I currently reside in Somerville, Massachusetts. I am a member of the Center for Biological Diversity and have been for several years. I became a member of the Center to help protect ocean biodiversity, in particular the Atlantic bluefin tuna.

2. I have a strong desire to protect the environment and see increased responsible stewardship of natural resources, including oceans. I prepared for my career achieving this by earning a Bachelor of Arts in natural science from Hampshire College in 1977 and a Master of Science and Teaching from Antioch New England Graduate School in Keene, New Hampshire. I went on to earn a PhD in Environmental Studies from Antioch in 2002. I also hold a certification in ecology from the Marine Biological Laboratory in Woods Hole.

3. I have been involved in environmental protection throughout my adult life and intend to further engage individuals and families as eco-stewards to create clean and healthy environments, and attain a better quality of life for humans and wildlife. I have been a leader of citizen-science efforts to clean up the Salem Sound and Boston Harbor, as president of the advocacy organizations Salem Sound Harbor Monitors, Salem Sound 2000 and later Save the Harbor/Save the Bay. I was also appointed by the Secretary of the Interior to the Boston Harbor Islands National Park Area Partnership.

4. I have a long interest in marine science and natural history education and public outreach. I was the Sea Education Association's first assistant scientist to work consecutive voyages on the **R/V Westward** in 1979 and 1980 sailing from Newfoundland to Martinique. I have also been a curator of natural history at The Peabody Essex Museum in Salem, Mass., a curator of education at the New England Aquarium, and an executive director of The Discovery Museums in Acton, Mass. I am a former president of the National Marine Educators Association

and the Essex County Ornithological Club. I was given the James Centorino Award for Distinguished Performance in Marine Education from the National Marine Educators Association in 1988, and the Rockefeller Brothers Fund Award for the Development of a College Course on Cetacean Biology, Ecology and Conservation in 1976.

5. I currently serve as the Executive Director and President of the Ocean River Institute, and have been in this role since 2007. The Ocean River Institute is a nonprofit environmental organization that provides support services for environmental groups, citizen science training and support, environmental monitoring, survey and assessment, collaborative ecosystem-based management, bio-regional planning and management, and ecosystem and wildlife stewardship. I coordinate with local groups to help save the environment, maintaining a network of Ocean River Institute partners and connecting them with resources and services to maximize their impact. I have served on the Stellwagen Bank National Marine Sanctuary Advisory Council and am a former Chairman of the Advisory Council of the Boston Harbor Islands National Park Area, on which I still serve.

6. I have taken multiple trips to the edge of the Atlantic continental shelf, to the area designated as the Northeast Canyons and Seamounts Marine National Monument. I have seen sperm whales, large black deep-diving toothed whales, on each of my three trips to the area. On one trip, I chartered a boat from Gloucester that motored all night. In the morning, we were above one of the deep sea canyons, roughly 140 miles southeast of Nantucket. I saw that the gray waters of Georges Bank had turned into a Mediterranean blue. The first sperm whale we saw was floating dead in the water. The sperm whale had injuries indicating that it had been struck by a ship. It was very upsetting to see this dead whale. Fortunately, we later saw two alive sperm whales, and watched them swim and dive through the water.

7. I greatly enjoy watching sperm whales swim and dive in the ocean. I hope to return to the canyons of the Atlantic continental shelf next summer. I will charter a boat, motor all night, and get up in the morning to see the clear blue of deep water and search for sperm whales and other animals. In addition, I may sail again with Sea Education Association as a visiting scientist for a leg of the voyage that takes us to the deep sea canyons. I imagine that with advances in technology, this area will become a hotspot for watching sperm whales, whether by rerouting cruise ships, drones or high-speed boats of passengers.

8. The Atlantic canyon areas support deep-water corals that aren't found closer to shore. We know very little about these corals, but what we do know shows that they are incredibly unique, biodiverse, and important to the marine ecosystem. Deep-sea corals pulled up by a mid-water trawl off the West coast of Ireland were determined to be 4,800 years old. These deep-sea corals are also incredibly sensitive, and because they lack algae, grow very slowly in the cold, dark environment. The canyons are considered biodiversity hotspots and give refuge to commercially valuable demersal ground fish like cod, haddock, pollack, hake and Acadian redfish, bottom dwelling lobster and skate, mid-water shoals of longfin squid, and frequented by five or more species of whales.

9. In addition to my trips out to the edge of the Atlantic continental shelf, I also enjoy whale watching. It's a family tradition. On April 15, 1976 I was teaching a college course on whales and dolphins and arrived in Provincetown with two van loads of students for New England's first commercial whale watch. On the way to Stellwagen Bank, I pointed out seabirds and sea ducks to the annoyance of the whale spotter searching for whales. About fifteen years later my three sons and I went on a whale watch out of Provincetown. I pointed out a large white seabird: "Look, there's a gannet. They are like a large flying cross." Moments later we heard

over the loudspeaker: "Look, there's a gannet. They are like a large flying cross." I pointed out another bird: "There's a greater shearwater. They nest in the South Atlantic on Tristan da Cunha." The loud speaker came on and again said the exact same thing. This happened three times and Dads never sounded so good.

10. I was the first whale watch narrator for the New England Aquarium. The Dolphin Fleet had sent two people on one of my watches and wrote down everything I said. Ever since my narrative descriptions of seabirds have been repeated on whale watches. I have a sailboat, a Nevins-built Rhodes 27, that winters in Mattapoisett and summers in Boston Harbor. Every spring we try to get the boat in the water in April so we may see right whales, fin and minke whales, gannets, shearwaters, petrels, loons, and red-breasted mergansers in Cape Cod Bay and Massachusetts Bay. Offshore, blue-water sailing is better in larger vessels. In April 2017, I sailed on the two masted, gaff-rigged, 100-foot sailing vessel **Tecla** from Amsterdam across the North Sea north to the Orkneys, over the top of Scotland and into the Western Isles. In August 2017, on board the **Bark Europa** I sailed from Bay of Islands Newfoundland to Louisburg Nova Scotia. This summer, I am scheduled to return to **Eda Frandsen**, a fifty-five-foot 1930s Danish gaff cutter, for a sail with my son through the Western Isles of Scotland west hopefully to reach St. Kilda, weather permitting. Nothing clears the head, humbles, and strengthens the soul like being far offshore, out of sight of land, taking the power of the wind to move the vessel over the waves, standing watch around the clock, and feeling kinship on the lonely sea when in the company of seabirds (fulmars and skuas), dolphins (white-sided, common and white-beaked) and whales (pilot, minke, and orcas).

11. I am currently working on a new program with citizen-oceanographers to monitor vertical mixing of seawater caused by diving sperm whales in the canyons incised into the edge

of the continental shelf in the Atlantic. The program will help determine whether sperm whales, which dive thousands of feet ten to twenty times a day, are mixing the water masses to increase the absorption of excess carbon and heat from the atmosphere. I am also working with citizen-scientists to remotely monitor the surfacing and diving of whales in the area in relation to ship traffic. By alerting ships in the presence of whales to either slow down to ten miles per hour or reroute around the national park area, we hope to eliminate ship strikes killing whales.

12. A healthy Atlantic Ocean environment is extremely important to, and greatly enhances, both my personal and professional life. Oil and gas activities in the Atlantic canyons area will harm the Atlantic Ocean environment, its abundant wildlife, and my personal and professional interests. For example, oil and gas activity in the Atlantic canyons area could destroy the deep sea coral colonies and seamount ecosystems by disrupting the seafloor and suspending sediments in the water column. I am also worried that increased vessel traffic from oil and gas activities will increase the risk that sperm whales will be run over and killed by ships. And seismic oil and gas exploration would harm sperm whales and other marine mammals. I know that harm is more acute in the area because intermediate water masses (Slope Water and Labrador Current Water) act as sound channels with smooth sides due to differing water densities of the surface and bottom waters. Sound travel is not slowed by the ocean floor or wavy sea surface. Sperm whales rely on sound to hunt and communicate in this dark environment, so are especially vulnerable to anthropogenic noise, which can compromise their ability to feed or silence the animals over great distances. Oil and gas activity in the Atlantic canyons area will also inhibit my ability to continue working with citizen-scientists to study sperm whales without the disturbance these activities would cause. And an oil spill would kill or

harm marine life in the area, with potentially devastating consequences for the populations that depend on these seascapes.

13. Conversely, protecting these unique, biologically rich areas from offshore oil and gas activity will ensure these practices do not destroy the unique assemblages of marine life living deep in the ocean on seamounts and in canyons, or the sperm whales, and other marine life they help support. Protecting these areas from oil and gas activities will also enable me to continue bringing people to discover and study the areas, learning how sperm whales may help reduce the impacts of climate change, documenting the diversity of marine life, the ebb and flow of populations, continuing my citizen-scientist projects, and with many eyes on distant ocean places strengthening national security.

14. In addition to my work to protect the Atlantic Ocean and its wildlife, I also work to protect species that live in the Arctic. For example, I was part of a campaign to protect black guillemots that nest on Cooper Island in the Beaufort Sea. As part of this work, I traveled to Barrow, Alaska and took a boat trip in the Beaufort Sea out to Cooper Island. On this trip we saw many species of birds, including greater yellow-billed loons, horned puffins, Barrow's goldeneye, common eider, parasitic jaeger, snowy owls and sea ducks. I hope to return to the area to see these animals and others.

15. Cooper Island is the first record of black guillemots breeding in the Beaufort Sea. It is a very fragile ecosystem and sensitive to human disturbance, particularly now in the face of climate change. Unlike other birds, this black guillemot population stays in the Arctic Ocean for the year and depend on ice floes for feeding on fish.

16. I worry that any additional oil and gas activity in the Arctic Ocean will harm black guillemots and other birds by causing oil spills that could kill the birds and their prey.

Protecting the Arctic Ocean from further oil and gas activity will help protect these animals and my personal and professional interests in them.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on

May 7th 2018 in

A handwritten signature in cursive script, appearing to read "Rob Moir", written over a horizontal line.

Rob Moir